

Pshezhetskii, S. Ya., Lyubarskii, G. D. and others.
RELATION OF THE KINETICS OF CATALYTIC
DEHYDROGENATION OF HYDROCARBONS TO
THEIR STRUCTURE. III. COMPARISON OF KINETIC
DATA FOR n-BUTANE AND n-BUTENE: PROBABLE
DEHYDROGENATION MECHANISM. [1961] 7p.
Order from ATS \$6.75 ATS-97N54R

Trans. of Zhur[nal] Fiz[icheskoi] Khim[ii] (USSR) 1954,
v. 28, no. 8, p. 1458-1464.

DESCRIPTORS: *Dehydrogenation, Hydrocarbons,
*Butanes, *Butenes, *Reaction kinetics.

(Chemistry--Physical, TT, v. 6, no. 11)

61-25450

- I. Pshezhetskii, S. Ya.
- II. Lyubarskii, G. D.
- III. ATS-97N54R
- IV. Title: Comparison...
- V. Associated Technical
Services, Inc.,
East Orange, N. J.

Office of Technical Services

Complex Formation in a Quaternary Reciprocal System of Chlorides, Sulfates, and Tungstates of Lithium and Potassium, by A. G. Bergman, A. I. Kialova, B. I. Posypaiko, 9 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol LXVIII, No. 8, 1954, pp 1489-1496.

LC or SLA 59-10064

Sci - Physics
Feb 59

00-F-3,123,681

1.80 ~~1.80~~

81,657

Precision of the Measurement of the Viscosity of
Molten Glasses, by V. T. Slavyanskiy, E. N. Krestnikova,
12 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXVIII, No 8, 1954,
pp 1497-1506.

LC or SLA 59-10066

Sci - Chemistry
Feb 59

2.40 micro
3.30 photo

81,998

Thermodynamic Constants of Water Insoluble
Halides, Sulfides, Oxides and Hydrates of Metals,
by N. P. Zhuk, 9 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXVIII, 1954,
pp 1523-1527.

AEC Tr-4116

Sci - Phys, Chem
Sep 60

124,856

On the Mechanism of Incomplete Oxidation of
Benzene, by I. I. Yoffe, 13 pp.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXVIII,
No 9, 1954, pp 1555-1561.

Sci Tr Center
RT-3940

Sci - Chemistry

37,870

Aug 1956

Kinetics and Chemistry of the Reaction of Ether With
Nitrogen Dioxide in the Gas Phase, by E. A. Blyum-
berg, V. L. Pikayeva, N. M. Emanuel, 27 pp.

UNCLASSIFIED

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIX^X, No 9,
Sep 1955, 1569-1581. CIA 9015001

NIH

58,092

Sci - Chem

Feb 58

Analysis of Multicomponent Heterogeneous Systems
by the Generalized Center of Gravity Rule, by
L. C. Palatnik, V. M. Kontorovich, 18 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXVIII, No 9,
1954, pp 1599-1614.

SLA 59-10737

Sci
Nov 99
Vol 2, No 3

101, 718

Transport and Distribution of Components of Metallic
Melts in an Electric Field, by B. Baronovskiy, 4 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXVIII, No 9,
1954, pp 1676, 1677.

SLA 59-15035

Sci - Phys
Sep 59
Vol 2, No 2

97994

Zhuk, N.P.
CONSTANTES THERMODYNAMIQUES DES SULFATES,
CARBONATES, CHROMATES, BROMATES, IODATES,
OXALATES ET D'AUTRES SELS METALLIQUES DIFFICILEMENT SOLUBLES DANS L'EAU (Thermodynamic Constants of Sulfates, Carbonates, Chromates, Bromates, Iodates, and Other Salts Slightly Soluble in Water). 4p. 4refs. CNRS-VIII bis 713.
Order from QTS, ETC or CNRS \$0.75 TT-62-26370

Trans. in French of Zhurnal Fizicheskoi Khimii (USSR) 1954, v.28, no.9, p.1690-1697.

DESCRIPTORS: *Thermodynamics, Data, Salts, Solubility, *Sulfates, *Carbonates, *Chromates, *Iodates, *Bromates, *Oxalates.

(Chemistry--Physical, TT, v. 11, no. 6)

TT-62-26370

- I. Zhuk, N.P.
- II. CNRS-VIII bis 713
- III. Centre National de la Recherche Scientifique, Paris

Office of Technical Services
European Translations Centre

RUSSIAN, mo per, Zhur Fiz Khim, Vol XXVIII, 1954, pp
pp 1701-1706.

*ATWC

Thermodynamic Investigation of the Dissocia-
tion of Sodium Fluosilicate and Its Solution
in Alkali Silicate, by M. A. Matveyev,
V. P. Dyatlova, 8 pp.

RUSSIAN, per, Zhur. Fiz. Khim., Vol XXVIII,
No 10, 1954, pp 1713-1719.

ATS-39442R

ATS/RJ- 2557

193,843

Sci.
Vol IV, No 7
Apr 62

Kinetic Method for the Employment of Marked Atoms^d
for the Investigation of the Mechanism of Complete
Chemical and Biochemical Processes. 3., by M. B.
Heyman, Gh. I. Feklisov, 14 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol. XXVIII, No 10,
1954, pp 1737-1744.

Sci Mus Lib Tr 57/0492

Sci - Physics
Jun 57

48,460

S-5128

(NY-2540)

Desorption Dynamics With Porous Adsorbents, by
M. V. Tovbin, A. D. Grinberg, 17 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXVIII, No 10,
1954, pp 1755-1764.

JPRS L-792-N

USSR

Sci - Chem
Jan 59

88, 210

Effect of Certain Additions of the Rate of
Reduction of Oxides of Nickel, Mercury, and
Cobalt, by A. F. Sgibnev, 6 pp.

RUSSIAN, no par, Zhur Fiz Khim, Vol XXVIII,
1954, pp 1770-1773.

AEC Tr E523

Sci - Minerals/Metals

36,782

Jul 1956

61-25325

Dzhigit, O. M., Kiselev, A. V., and Nelmark, I. E.
A STANDARD SERIES OF SILICA GELS AND THEIR
STRUCTURE. [1961] 9p.
Order from ATS \$13.35

ATS-16NS4R

Trans. of Zhur[nal] Fiz[icheskoi] Khim[ii] (USSR) 1954,
v. 28, no. 10, p. 1804-1811.

DESCRIPTORS: *Gels, *Silicon compounds, Molecular
structure.

I. Dzhigit, O. M.
II. Kiselev, A. V.
III. Nelmark, I. E.
IV. ATS-16NS4R
V. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS/RJ-8034

155225

Office of Technical Services

(Chemistry--Physical, TT, v. 6, no. 8)

S-5259

(LY-2749).

Experimental Confirmation of the Theory of Crystal
Growth and the Relation Between the Equilibrium Forms
and the Forms of Growth, by V. I. Danilov, V. I.
Malkin, 13 pp.

RUSSIAN, per, Zhur Fiz. Khim., No 10, 1954, pp 1837-
1844.

JPRS-L-946-N

Sci - Chem, Crystallization
Sep 59

97842

Activation Energy of Hydrogen Ion Discharge
and the Theory of a Delayed Discharge, by O. M.
Foltovsk, 12 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXVIII, 1954,
pp 1845-1853.

AEC Tr 2620

Sci -- Physics, -chemistry
Nov 56 OEB

40, 479

The Kinetic Equation of A. V. Frost, A. I.
Dintees, by A. D. Stepukhovich, 13 pp.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXVIII, No 11,
1954, pp 1882-1885.

Sci. Bib. 7/11/54
SIA Tr R-434

841 - Chem
Jul 57

49,942

G-2945

Computation Methods for Phase Equilibrium of Binary
Liquid-Vapor Systems, by V. E. Kogan, V. M. Fridman.

RUSSIAN, per, Zhur Fiz Khim, Vol XXVIII, 1954, pp
1889-1895.

14/11/57

Sokolik, A. S. and Basevich, V. Ya.
THE KINETIC NATURE OF SELF-IGNITION IN
DIESEL ENGINES. 1964 16p (figs omitted) 4refs
Order from OTS, SLA, or ETC \$2.60 TT-64-14935

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1954,
v. 8, no. 11, p. 1935-1949.

(Materials--Fuels, TT, v. 11, no. 11)

TT-64-14935

I. Sokolik, A. S.
II. Basevich, V. Ya.

Office of Technical Services

The Kinetic Nature of Autoignition in Diesel
Engines, by A. S. Sokolik, V. Ya. Basevich

RUSSIAN, per, Zhur Fiz Khim, Vol XXVIII, No 11,
1954, pp 1936-1949.

Assoc Tech Sv RJ-460
\$15.25

Sci - Engineering
Jan 57 CTS

42,172

Thermodynamic Properties of Lead, Chloride in
the Fusions PbCl_2 - LiCl , PbCl_2 - NaCl , PbCl_2 -
 KCl , and PbCl_2 - RbCl , by B. F. Markov, Yu. K.
Delimarskiy, P. D. Panchenko, 26 pp.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXVIII,
1954, pp 1987-1998.

AEC Tr 2213

Scientific - ~~Physics~~
CTS 73/Oct 1955

Chemistry
27,149

One Case of Kinetics of Heterogeneous
Reactions Proceeding with the Partici-
pation of Solid Bodies, by M. M. Pav-
lyuchenko, 6 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol ^XXVIII,
1954, pp 2042-2046.

SIA R-2147

Sci

Aug 58

72,195

Izmatlov, N. A.

THE THEORY OF ACID DISSOCIATION IN SOLUTION
tr. by Charles T. Ostertag. May 63 [29]p. 44 refs.
ABL Trans. no. 735; AD-107 465.
Order from OTS or SLA \$2.60

63-23087

Trans. of [Zhurnal Fizicheskoi Khimii] (USSR) 1954,
v. 28, no. 11, p. 2049-2066.

DESCRIPTORS: *Dissociation, *Ionization, *Acid-base
equilibrium, *Chemical equilibrium, *Acids, Chemical
properties, Physical properties, Solutions, Mathe-
matical analysis, Quantitative analysis, Solvents,
Equations.

On the basis of a new theory of acid dissociation, an
equation was worked out which characterizes the de-
pendency of acid strength on the physical and chemical
properties of the solvents. The derived equation makes
it possible, on the basis of independent data, to evaluate
(Chemistry--Physical, TT, v. 10, no. 11) (over)

63-23087

- I. Izmatlov, N. A.
- II. ABL Trans-735
- III. Army Biological Labs.,
Frederick, Md.
- IV. AD-107 465

Office of Technical Services

The Theory of Initial Complexes in Chemical Kinetics. Part I, An Interpretation of Modern Theories of Chemical Kinetics, by N. I. Kobosev, 27 pp.

RUSSIAN, no par, Zhur Fiz Khim, Vol XXVIII, No 11, 1954, pp 2067-2080, Encl to IR-1729-56, AFOIN-1A1.

AID
AF 1036705

Sci - Chemistry
Jan 57 CTS

42, 886

ACC Tr 3114

Generalized Equation of the Combustion of a Carbon
Channel or Passage, by S. P. Adamenko,

RUSSIAN, per Zhurnal Fizicheskoi Khimii, Vol XXVIII,
No 12, 1954, pp 2081-2087.

Technical and Commercial Trans
2135 Spruce Street
Phila 8, Pa.

Scientific - Chemistry

32,698

32826

The Equilibrium at Reactions With the Participation
of Radicals, by A. D. Stepukhovich

RUSSIAN, per, Zhurnal Fizicheskoi Khimii, Vol XXVIII,
No. 12, 1954, pp 2088-2094.

Technical and Commercial Trans.
2135 Spruce Street
Phila. 3, Pa.

32,697

Scientific - Chemistry

Apr 56

Study of the Kinetics and the Mechanism of the
Oxidation of Aromatic Hydrocarbons in the Vapor
Phase. V. Kinetics of the Oxidation of Naphthalene
Over Composites With Vanadium Catalyst, by I. I.
Yoffe, Yu. G. Sherman,

RUSSIAN, per, Zhurnal Fizicheskoi Khimii, Vol XXVIII,
No 12, 1954, pp 2095-2106.

Technical and Commercial Trans.
2135 Spruce Street
Phila. 2 3, Pa.

32,710

Scientific - Chemistry

Apr 56

Kinetics of Solution of a Solid Under Conditions of
Convection, by G. A. Aksel'rund, 14 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXVIII, 1954,
pp 2107-2120

2175
SLA
R-2848

Sci

Jul 59

92,381

Kinetics and Reaction Mechanism of the Exchange
of ~~SMITH~~ Sulfur Between Tetramethylthiuram Disulfide
and Elementary Sulfur, by E. N. Guryanova, L. S.
Kuzina, 26 pp.

RUSSIAN, no per, Zhur Fiz Khim., Vol XXVIII, No 12,
1954, pp 2116-2128.

Sci Tr Ctr RT-3445

Scientific - Chemistry

34,862

May 56 CFB/dex

Co-Opt. Scheme 203

(2)
Study of the Radical Polymerization of Styrene
by the Method of a Marked Carbon Atom (C^{14})

RUSSIAN, per, Zhurnal Fizicheskoi Khimii, Vol
XXVIII, No 12, 1954, pp 2137-2141.

Technical and Commercial Trans.
2135 Spruce Street
Phila. 3, Pa.

Scientific - Chemistry

32,718
Apr 56

Critical-Temperature Region of Boronoxide According
to Data on Heat Capacities and Vitreous Borates,
by R. L. Mylner, 7 pp.

RUSSIAN, per, Zhur Fis Khim, Vol XXVIII, No 12,
1954, pp 2170-2177.

LC or SLA 59-10069

Sci - Chemistry
Feb 59

81,559

1.60

A Method for the Analysis of Microscopic Quantities
of Heavy Water, by R. E. Mordaleishvili,
G. K. Lavrovskaya, V. V. Vorodskiy, 8 pp

RUSSIAN, per, Zhur Fiz Khim, No 28, 1954,
pp 2195-2198.

23, 563

AEC Tr No 2114

Scientific - Physics

May 55 CTS

Catalytic Activity of Adsorption Platinum Catalysts
in the Decomposition of Hydrogen Peroxide, by A. A.
Lopatkin, V. I. Shekhobalova, V. P. Lebedev, 12 pp.

RUSSIAN, per, Zhur Fis Khim, Vol XXVIII, No 12, 1954,
pp 2222-2231. 97672

Assoc Tech Serv 5(HL2R)

ATS/RJ-714

Jul 58

69, 984

The Theory of Initial Complexes in Chemical
Kinetics. Part II. Entropy of the Active State,
by N. I. Kobenev, 31 pp.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXVIII, No 12,
1954, pp 2234-2252, Encl to DB-1730-56, AFOIN-1A1.

AF 1054008

Sol - Chemistry
Jan 57 CTS

42,627

Electrical Properties of Condensed Aromatic-
Hydrocarbon Films on Aqueous Inorganic Salt
Solutions, by M. A. Gerovich and O. G. Ol'man,
8 pp.

RUSSIAN, per, Zhur Fiz. Khim., Vol 28, No 1, 1954,
pp 19-25. F911278667
ABC IB 4r-65

Sci - Physics
Sept 67

341,516

Chain Structures of Sesquioxides of As, Sb, Bi,
and B and the Theory of Thermal Capacity, by
V. V. Tarasov, 6 pp.

RUSSIAN, ~~XXXX~~ no per, Zhur Fiz Khim, Vol XXIX,
No 1, 1955.

CIA/TDD/KK-99
IAC INTERNAL USE ONLY

32,309

Scientific - Chemistry

Mar 56 CTS/DEX

NOT RELEASABLE TO FOREIGN NATIONALS

Saturated and Unsaturated Vapor Pressure of
Potassium Chloride Solutions in Hydrochloric
Acid, by A. V. Storonkin, N. P. Markuzin, 17 pp.

RUSBIKH, per, Zhur Fiz Khim, Vol XXIX, pp 11-19,
1955.

SLA R-1556

Sci - Chem
Aug 58

70,624

Non-Linear Equations for Creep and Relaxation of
Materials in a Complex Stressed State, by M. I.
Rozovskiy, 23 pp.

RUSSIAN, per, Zhur Tekh Fiz., Vol XXV, 1955,
pp 2339-2354.

AEC UCRL-Trans-473(L)

Sci - Phys
May 61

150,386

Electrode Potentials of Metals in Molten Salts.
The Unit Scale of Electrode Potentials, by
Yu. K. Delimarskiy, 24 pp.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIX, 1955,
pp 28-38.

h-4 5642
AEC Tr 2217

Scientific - Physics
CTB 73/Oct 1955

27,145

Kinetics and Mechanism of Hetero-
geneous Reactions Proceeding with the
Participation of Solid Bodies, by M.
M. Pavlyuchenko, 13 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX,
1955, pp 39-47.

2148
SLA R-~~248~~

Sci

Aug 58

72,194

Thermodynamic Properties of Magnesium Chloride
in Alloys of $MgCl_2$ - $LiCl$, $MgCl_2$ - $NaCl$, $MgCl_2$ -
 KCl and $MgCl_2$ - $RbCl$, by B. F. Markov, Iu. K.
Delimarskiy, I. D. Panchenko, 23 pp.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIX,
1955, pp 51.

AEC Tr 2212

Scientific - Physics *Chemistry.*
CTS 73/Oct 1955

27,156

Behavior of Ethylene Oxide at High Temperatures, by
P. V. Zimakov.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, No 1, 1955,
pp 76-83.

Assoc Tech Sv *Tr*
\$9.95 *RJ-767*

51,528

Sci - Chemistry
Aug 57

CFSTI TT-64-12461

Saturated and Unsaturated Vapor Pressure of
Potassium Chloride Solutions in Hydrochloric
Acid, by A. V. Storonkin and N. F. Markusin,
13 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, 1955, pp
111-119.

SLA R-2136

Sci

Aug 58

72,208

Residual Stresses in Electrodeposits, by A. T.
Vaganyan, Yu. S. Tsareva.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIX, No 1,
1955, pp 185-193.

Brutcher Tr 3749

Sci - Physics

37/23

Aug 1956

\$5.90

Some Statistical Data Which Characterize the Long
Chain Molecules of Polyacrylonitrile in Solution,
by Ye. F. Reskin, 12 p.

RUSSIAN, per, Zhur Fiz Khim, 1955, Vol XXIX, No 2,
pp 244-249.

SLA 59-20834

Sci
Mar 60
Vol 3, No 1

119,872

Reduction of Oxides of Iron With Graphite, by
V. I. Arkharov, et al.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, No 2, 1955,
pp 272-279.

27826

Butcher Tr 3570

Scientific - Min/Metals

Oct 55 CTS

Malt'sev, A. N. and Kobozev, N. I.
INVESTIGATION ON THE ACTIVE CENTERS IN
HYDROGENATION OF ETHYLENIC HYDROCARBONS,
II. 16p 25refs
Order from OTS, SLA, or ETC \$1.60 TT-64-16387

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1955,
v. 29 [no. 2] p. 291-304.

(Chemistry--Physical, TT, v. 12, no. 4)

TT-64-16387

I. Malt'sev, A. N.
II. Kobozev, N. I.

Office of Technical Services

Electronographic Investigation of Diketo-
piperazine, by B. K. Vainshtein, 26 pp.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIX, No 2,
1955, pp 327-344.

Sci Tr Center
RT-3905

Sci - Chemistry

Aug 1956

37,889

Application of Thermobattery for Measurement
of Temperature Effect on the Cathode During
Electro-Precipitation of Metallic Powders, by
D. N. Gritsan, A. M. Bulgakova, 10 pp.
RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, 1955,
pp 345-349.
CIA/FDD X-5670

Sci - Engr
Aug 65
FOR OFFICIAL USE ONLY

284,351

The Rate of Corrosion in Relation to the pH Value
of a Solution and the Passivation of Metals in
Alkaline Solutions, by L. K. Lepin, A. Ya. Vaivada,
Z. P. Oshis.

Full tr

RUSSIAN, per, Zhur Fiz & Khim, Vol XXIX, No 2, 1955,
pp 350-355.

Navy Tr 1437/MRL 590

Sci - Chemistry
Jan 1957 GTS/dex

The Carbon Monoxide Slow Oxidation
Kinetics, by V. I. Zvezkova, V. V.
Vosvodskii, E. M. Chirkov.
RUSSIAN, per, Zhurnal Fiziko-khimi,
Vol 29, 1955, pp 380-9.
SLA TT-66-11067

Sci - Chem
Jul 67

331, 518

Hydrogen Overvoltage on Amalgams, by G. I. Vokhov.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIX, 1955, pp 390-401.

ABO Tr 2465

Scientific - Physics
- ~~Min/Metals~~
Jun 56 CPH/dex

36,286

[FDD 26160]

The Structure of Glass and the Strength of Glass Fibers,
by G. M. Bartenov, A. N. Bovkuzenko, 10 pp.

RUSSIAN, no per, Zhur Fiz Khimi, Vol XXIX, No 3, Moscow,
1955, pp 508-512.

CTE TT-64-14120
LSIR 28152
CIA/FDD/U-7342

USSR

Sci - Glass fibers

29,058

(Selsky)

Thermodynamic Studies at Low Temperatures VI.
Heat Capacity of Molybdenum Hexacarbonyl between
10.8 and 301° K. Enthalpy and Entropy of
 Mo(CO)_6 at ~~298.15~~ 298.16° K, by D. N. Aronov, et al.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX No 3,
1955, pp 424-427.

ATS RJ-1142

Scl - Chem.
Apr 60

14,516

Hydrogen Overvoltage and Capacity of the Double
Layer of a Lead Electrode, by Ya. M. Kolotyrkin,
M. Ya. Bune,

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, No 3, 1955,
pp 435-449.

Assoc Tech Sv RJ-449

36,960

\$19.00

Sci - Engineering

Aug 1956

PO Box 271, East Orange, N. J.

Cathodic Polarization and the Temperature
Effect on the Cathode During Electro-Precipitation
of Metallic Powders, by D. N. Gritsan,
A. M. Bulgakova, 10 pp.
RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, 1955,
pp 430-454.
CIA/FDD X-5667

Sci - Phys

Aug 65

FOR OFFICIAL USE ONLY

284,352

The Accuracy of the Determination of
Densities and Molecular Volumes of E-
lectrolytes in Aqueous Solutions at
High Dilutions, by A. P. Rutskov, 7 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX,
1955, pp 463-468.

SLA R-2135

Sci

Aug 58

72,060

The Influence of the Molecular Weight on the
Mechanical Properties of Crystalline
Polymers, by V. A. Kargin, T. I. Sogolova.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX,
No 3, 1955, pp 469-475.

TPA2/TIB T-4602

Sci - Chemistry, Physics 32, 327

OTS-61-20706

Kinetics of Ion-Exchange Sorption, by O. N.
Mamontova, 9 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, No 3,
1955, pp 476-479.

Sci Mus Lab No 56/2239

Sci Physics

42,851

ASCIB 6861

(FDD 27654)

The Structure and Properties of Ethylene Oxide, by P.
V. Kizilov, 12 pp.

RUSSIAN, no par, Zhur Fiz Khim, Vol XXIX, No 3, Moscow,
Mar 1955, pp 496-501.

CIA/FDD u-8557

38,114

USSR

Sci - Chemistry

Determination of the Initial Concentration of Atomic Oxygen Under Jet Conditions by a Chemical Method, by L. I. Avramenko, R. V. Kolesnikova.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, 1955, pp 539-541.

SLA R-4990

Sci - Physics
Apr 59

84,376

Intermolecular Spacing in Crystallized
Rubber, by A. I. Kitaigorodski, Yu. V. Nyuk.
RUSSIAN, per, Zh Fiz Khim, Vol 29, No 3,
1955, pp 584.
NTC 69-12491-07D

Sci-Chem
Aug 69

389,386

Investigation of Equilibrium in the Reduction of
Titanium Dioxide by Carbon at High Temperatures,
by V. S. Kutsev, B. F. Ormont.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, No 4, 1955,
pp 597-601.

Brutcher Tr
No 3642

Scientific - Chemistry

Jan 56 CTS/DEX

\$4.50

30,252

Method of Investigating the Equilibria in the
Formation of Carbides from Oxides at High
Temperatures, by V. S. Kutsev, et al.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIX, No 4,
1955, pp 629-634.

REC Tr 286/
Brutcher Tr 3728

Sci - Chemistry, Minerals/Metals

Jun 1956

Corrosive and Electrochemical Behavior of
Electrolytically Polished Aluminium, by
I. L. Rosenfel'd et al.

RUSSIAN, no ger, Zhur. Fis Khim, Vol XXIX,
No 4, 1955, pp 668-670.

Co-Op Trans Sch Tr 247
8s.3d. (3s.0d.)

Sci - Chemistry, electricity

42,275

The Velocity of Propagation of Sound in a Mixture of
Chemically Reacting Substances, by E. F. Dubinina,
B. B. Kudryavtsev.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIX, No 4, 1955,
pp 677-681.

Scientific - Chemistry

Jun 56/dax

36,099

Insdoc

Nat Phys Lab of India

Hillside Rd

New Delhi-12, India

REF 10-151

Studies in the Field of the Kinetics and
Mechanism in of the Vapor-Phase Oxidation of
Aromatic Hydrocarbons. VI, Mechanism of the
Oxidation of Naphthalene on Vanadium Catalysts,
by I. I. Yoffe, Yu. G. Sherman, 14 pp.

RUSSIAN, per, Zhurnal Fizicheskoi Khimii,
Vol XXIX, No 4, 1955, pp 692-698.

Sci Trans. Center RT-3385

Scientific - Chemistry

3.2, 7/2

Apr 56

Correlations of the Thermodynamic Properties of
Organic Compounds in the Liquid Phase, by P. G.
Maslov.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, No 4,
1955, pp 718-722.

ATS RJ-1269

Sci - Phys, Chem
Apr 60

114,571

The Liquids Curve (Mathematical) Application in
Binary Systems, by S. D. Gromakov and L. M. Groma-
kova, 7 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, 1955, pp
745-749.

SLA R-2142

Sci

Aug 58

72,167

S-129/60

(DC-3481).

The Problem of Hydrogen Isotope Exchange in
Saturated Hydrocarbons, by Ya. M. Varshavskiy,
S. E. Vaysberg, M. G. Loshkina, 4 pp.

RUSSIAN, per, Zhur Fis Khim, Vol XXIX, No 4, 1955,
1955, pp 750, 751.

JPRS 3120

Sci - Chem
Mar 60

111, 505

Chlorine Electrode of Comparison in Molten
Chlorides, by M. V. Smirnov, S. F. Plaguyev,
L. E. Ivanovskiy, 6 pp.

RUSSIAN, per, Zhur Fis Khim, Vol XXIX, 1955, No 5
pp 772-777.

AEC Tr 2674

Sci - Chemistry
Jan 57 CTS

42,181

Shimonaev, G. S. and Rozhkov, I. V.
LIQUID-PHASE OXIDATION OF HYDROCARBONS IN
THE PRESENCE OF ETHYL FLUID [1964] 7p (figs
omitted) 11 refs
Order from OTS, SLA, or ETC \$1.10 TT-64-14936

Trans. of Zhur[nai] Fiz[icheskoi] Khim[ii] (USSR) 1965,
v. 29, no. 5, p. 791-796.

(Chemistry--Physical, TT, v. 11, no. 11)

TT-64-14936

I. Shimonaev, G. S.
II. Rozhkov, I. V.

Office of Technical Services

Determination of the Number of Electrons
Participating in the Electrochemical Reduction
of Columbium and Titanium, by E. I. Krylov,
V. S. Kulevatova.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, No 5,
1955, pp 818-821.

Butcher No 3686

\$2.75

Sci - Electronics, chemistry

40,665

Study of Some Relationships in the Formation of
Alloys of Isomorphic Borides, by G. V. Samsonov,
V. S. Meshpor.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIX, No 5,
1955, pp 839-845.

, Henry Bratcher

No 3997

\$6.80

53,198

Sci - Min/Metals

Sep 57

S-84/60

(NY-3544).

Study of the Effect of Molecular Structure on the Velocity of the Ionic and Atomic Reactions of Isotope Exchange. I. The Effect of Isomerization of the Radical ~~and~~ and of the Introduction of a Double Bond ~~into~~ on the Rate of Isotope Exchange of an Alkyl Halide With Halide Ions, by M. B. Heyman, V. B. Miller, Yu. M. Shapovalov, 10 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, No 5, 1955, pp 892-897.

JPRS 2550

Sci - Chem

May 60

117,494

Kinetics of Ammonia Synthesis on the Smooth Surface
of an Iron Catalyst, by A. N. Gerasenkova, M. T.
Rusov, O. A. Strel'tsov, 13 pp.

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIX, No 5,
1955, pp 898-903.

Sci Tr Ctr RT-3428

Scientific - Chemistry

34,860

May 56 CTS/dex

The Electrical Conductivity of Crystals of
Polycyclic Compounds and Other Organic
Insulators, by M. V. Ryl', 13 pp. UNCLASSIFIED

RUSSIAN, per, Zhur Fis Khim, Vol XXIX, 1955,
pp 959-974, (II) 1152-1161. CIA 9030914

ABSTRACT
ACSIL Tr 929

Sci - Chem
Aug 58

70,135

The Role of Macrokinetic Factors in Catalytic
Naphthalene Oxidation Processes on Fused Vanadium
Pentoxide, by G. P. Korneichuk, Ya. V. Zhigailo, V. A.
Roiter.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, 1955, pp 1073-
1079.

CIA/FDD XX-1073
NOT RELEASABLE TO FOREIGN NATIONALS

Sci

170, 444

Oct 61

USIB INTERNAL USE ONLY

Study of Spectra Produced by High-Frequency
Electric Discharge in Gases and Flames
at Atmospheric Pressure, by V. S. Rossikhin,
T. S. Tsikora, 19 pp.

RUSSIAN, per, Zhur Fiz Khim, 5858,
Vol. XXX, No 6, 1955, pp 1079-
1086. ~~902254e~~ 9066939

AND Tr-3288

Sci - Electricity,
Chem
Oct 62

212, 672

(NY-1528)

Spectroscopic Investigation of High Frequency
Electric Discharges in Gases and Flames at Atmos-
pheric Pressure, by V. S. Rossikhin, I. L.
Tsikora, 10 pp. UNCLASSIFIED

RUSSIAN, no par, Zhur Fiz Khim, Vol XXIX, No 6,
Moscow, Jun 1956, PP 1080-1086.

5
US JPRS/NY-L-78

Sci - Chem
May 58

62,578

Nikolaev, L. A. and Papko, S. I.
ÉTUDE EXPERIMENTALE DE LA CINÉTIQUE DES
REACTIONS DANS LES LIQUIDES PAR LA MÉTHODE
DES VEINES (Eksperimental'noe Issledovanie Kinetiki
Reaktsii v Zhidkostyakh Struimym Metodom) (Experi-
mental Investigation of Reaction Kinetics in Liquids
by the Flow Method), 11p. (foreign text included)
5 refs., CNRS-VIII bis 415.
Order from OTS, ETC or CNRS \$1.60 TT-62-28167

Trans. in French of Zhurnal Fizicheskoi Khimii...
(USSR) 1955, v. 29, no. 6, p. 1113-1115.

DESCRIPTORS: *Chemical reactions, Reaction
kinetics, Velocity, *Liquids, Installation,
*Capillary tubes.

(Chemistry--Physical, TT, v. 11, no. 8)

TT-62-28167

- I. Nikolaev, L. A.
- II. Papko, S. I.
- III. CNRS-VIII bis 415
- IV. Centre National de la Recherche Scientifique, Paris

Office of Technical Services
European Translations Centre

Electroconductivity of Crystals of Polycyclic
Compounds and Other Organic Non-Conductors, by N. V.
11, 11 pp.

II

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, No 7,
1955, pp 1152-1161.

ATS-72L36R

c1

IS, Vol III, No 8

Pr 61

145, 125

Pavlyuchenko, M. M. and Vaynshteyn, Ye. N.
THE KINETICS OF THE DECOMPOSITION OF POTASSIUM BICARBONATE (Kinetika Razlozheniya Bikarbonata Kaliya). Jan 61 [12]p. 18 refs. RTS 1738.
Order from LC or S.A. m\$2.40, ph\$3.30 61-15386

Trans. of Zhurnal Fizicheskoy Khimii (USSR) 1955, v. 29, no. 7, p. 1173-1180.

The kinetics of decomposition of potassium bicarbonate in the temperature range 158-214°C have been studied. The rate of the decomposition increases to a maximum and then diminishes to zero. The reaction commences at separate centres, then rapidly spreads over the surface, covering it with solid product in 5-10 min. Increasing the geometrical surface more than 50 times has practically no effect on the reaction rate; this is related to the large internal surface of the crystals. The activation energy of the decomposition of potassium bicarbonate is 15500 cal, which coincides, within the limits of experimental error (Chemistry--Physical, TT, v. 5, no. 7) (over)

61-15386

- I. Potassium carbonates--
Decomposition
- II. Pavlyuchenko, M. M.
- III. Vaynshteyn, Ye. N.
- IV. RTS 1738
- IV. Department of Scientific
and Industrial Research
(Gr. Brit.)

148,745

Office of Technical Services

The Determination From the Kinetic Data of the
Reactionary Constant and of the Effective Diffusion
Coefficient Inside a Porous Catalyst, by
K. N. Belonogov, B. I. Popov, 11 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, 1955,
pp 1187-1192.

CIA/FDD X-2736

Sci - Chem
Apr 58

61, 932

Lithium Metaniobate and Metatantalate,
by A. V. Lapitskiy, Yu. P. Simanov, 5 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIX,
No 7, 1955, pp 1201-1203. 9069045

AEC SCI-T-437

Sci - Phys, Chem
Dec 62

OTC 62-1807

217,469

S-2949

Equations of State Liquids, by I. A. Selitskiy.

RUSSIAN, per, Zhur Fiz Khimii Vol XXIX, 1955,
pp 1221-1226.

14/11/57

Electronographic Investigation of Polymers.
III Examination of the Change in Structure of
Crystalline and Amorphous Polymers With
Temperature, by V. A. Kargin, G. S. Markova.

RUSSIAN, per, Zhur Fiz. Khim, Vol XXIX, No 7,
1955, pp 1273-1277.

T.I.L. T-4645

Sci - Chemistry

34, 476

May 1956